

## PENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION  
(PCT Rule 61.2)

To:

Assistant Commissioner for Patents  
 United States Patent and Trademark  
 Office  
 Box PCT  
 Washington, D.C.20231  
 ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 27 April 2000 (27.04.00)
--

International application No. PCT/US99/19688	Applicant's or agent's file reference RCA89175
---	---

International filing date (day/month/year)
--

Priority date (day/month/year) 26 August 1998 (26.08.98)
---

## Applicant

VIRAG, David, Emery et al

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

24 March 2000 (24.03.00)

in a notice effecting later election filed with the International Bureau on:

\_\_\_\_\_

2. The election  was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	Authorized officer R. Forax  Telephone No.: (41-22) 338.83.38
---	--

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)Date of mailing (day/month/year)  
17 August 2000 (17.08.00)

From the INTERNATIONAL BUREAU

To:

TRIPOLI, Joseph, S.  
Thomson Multimedia Licensing  
Incorporated  
P.O. Box 5312  
Princeton, NJ 08543  
ETATS-UNIS D'AMERIQUEApplicant's or agent's file reference  
RCA89175

## IMPORTANT NOTIFICATION

International application No.  
PCT/US99/19688International filing date (day/month/year)  
26 August 1999 (26.08.99)

## 1. The following indications appeared on record concerning:

 the applicant     the inventor     the agent     the common representative

## Name and Address

THOMSON CONSUMER ELECTRONICS, INC.  
10330 North Meridian Street  
Indianapolis, IN 46290-1024  
United States of America

## State of Nationality

## State of Residence

Telephone No.

Facsimile No.

Teleprinter No.

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

 the person     the name     the address     the nationality     the residence

## Name and Address

THOMSON LICENSING S.A.  
46, Quai A. Le Galo  
92648 Boulogne Cedex  
France

## State of Nationality

## State of Residence

Telephone No.

Facsimile No.

Teleprinter No.

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

## Authorized officer

Simin Baharlou

Facsimile No.: (41-22) 740.14.35

Telephone No.: (41-22) 338.83.38

MAY 16

IS&amp;S

PCT

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

TRIPOLI, Joseph; SHONEMAN, David  
THOMSON MULTIMEDIA LICENSING INC.  
P.O. Box 5312  
Princeton, New Jersey 08543-5312  
ETATS-UNIS D'AMERIQUE

H DTS

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

Date of mailing (day/month/year)	11.05.2000
-------------------------------------	------------

Applicant's or agent's file reference RCA89175	<b>IMPORTANT NOTIFICATION</b>	
---	-------------------------------	--

International application No. PCT/US99/19688	International filing date (day/month/year) 26/08/1999	Priority date (day/month/year) 26/08/1998
---	--	--

Applicant THOMSON CONSUMER ELECTRONICS, INC. et al.
--

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/	Authorized officer
---------------------------------------	--------------------

European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Comudet-Henschel, V
---	---------------------

Tel. +49 89 2399-7371
-----------------------



# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

Applicant's or agent's file reference  RCA89175	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No.  PCT/US99/19688	International filing date (day/month/year)  26/08/1999	Priority date (day/month/year)  26/08/1998
International Patent Classification (IPC) or national classification and IPC  H04N5/44		
<p><b>Applicant</b>  THOMSON CONSUMER ELECTRONICS, INC. et al.</p>		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I    <input checked="" type="checkbox"/> Basis of the report</li> <li>II    <input type="checkbox"/> Priority</li> <li>III    <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV    <input type="checkbox"/> Lack of unity of invention</li> <li>V    <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI    <input type="checkbox"/> Certain documents cited</li> <li>VII    <input type="checkbox"/> Certain defects in the international application</li> <li>VIII    <input type="checkbox"/> Certain observations on the international application</li> </ul>		

Date of submission of the demand  24/03/2000	Date of completion of this report  11.05.2000
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Luckett, P  Telephone No. +49 89 2399 8965



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/19688

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-15                   as originally filed

**Claims, No.:**

1-13                   as originally filed

**Drawings, sheets:**

1/3-3/3               as received on                   22/11/1999   with letter of               22/11/1999

2. The amendments have resulted in the cancellation of:

the description,      pages:  
 the claims,           Nos.:  
 the drawings,         sheets:

3.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US99/19688

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)              Yes: Claims 1-13  
                            No: Claims

Inventive step (IS)       Yes: Claims 1-13  
                            No: Claims

Industrial applicability (IA)    Yes: Claims 1-13  
                                No: Claims

**2. Citations and explanations**

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US99/19688

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**Va) re Novelty and Inventive Step**

- 1 EP-A-0 843 468 (SONY CORP) 20 May 1998 (1998-05-20) in which EPG apparatus displays information such as the status of connection of other equipment connected to the EPG apparatus on an EPG screen. A TV (21) detects the fact that a VTR (22) is connected thereto by communication through a digital signal control line (29). The TV (21) displays a character or an image indicating the fact that the VTR (22) is connected thereto on an EPG screen of a display unit (36) along with EPG data resulting from decoding by an EPG decoder (39) employed in the TV (21). While watching the EPG screen, the user is capable of selecting a broadcasted program received by a tuner (37) employed in the TV (21) or a program to be played back by the VTR (22). In addition, a video-recording reservation in the VTR (22) can be made.
- 2 US-A-4 996 597 (DUFFIELD DAVID J) 26 February 1991 (1991-02-26) cited in the application, discloses a user programmable switching arrangement. A switching system for a television receiver allows a user to specify which of several input connectors (AUX1; AUX2; AUX3) is assigned to which of several signal sources (VCR1; VCR2; CABLE). Thereafter, upon selection of a particular signal source, the system automatically selects the input connector associated with the selected signal source. However, in this disclosure there is no hint of any automatic polling of the plural inputs once the user has allocated their respective signal sources.
- 3 In contrast to this prior art, the invention as expressed in claims 1-13, provides for automatic polling of plural inputs to video processing apparatus adapted to determine upon which one of the plurality of inputs a particular peripheral device is connected. This element of automatic discriminatory polling of plural inputs in the current technical context, is not disclosed, suggested or rendered obvious by the available prior art of file.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US99/19688

**Vb) re Industrial Applicability**

- 4 The claimed invention finds manifold application in the technical field of video processing apparatus control, more particularly in situations where multi media installations are supplied with plural data inputs of differing formats and systems. It thus finds widespread applicability in many branches of industrial endeavour.



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

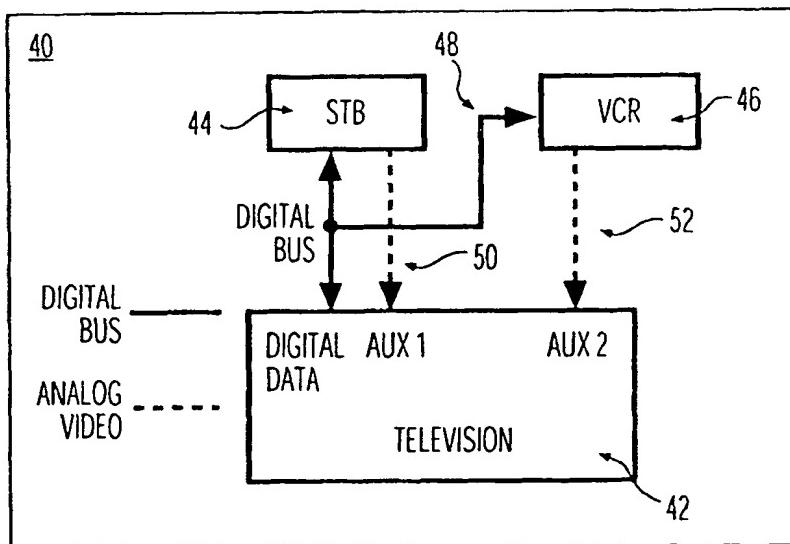
(51) International Patent Classification <sup>7</sup> :	A1	(11) International Publication Number:	<b>WO 00/13408</b>
<b>H04N 5/44</b>		(43) International Publication Date:	9 March 2000 (09.03.00)

(21) International Application Number:	PCT/US99/19688	(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
(22) International Filing Date:	26 August 1999 (26.08.99)	
(30) Priority Data:		
60/097,916	26 August 1998 (26.08.98)	US
(71) Applicant (for all designated States except US):	THOMSON CONSUMER ELECTRONICS, INC. [US/US]; 10330 North Meridian Street, Indianapolis, IN 46290-1024 (US).	
(72) Inventors; and		
(75) Inventors/Applicants (for US only):	VIRAG, David, Emery [US/US]; 7485 Cherry Hill Drive, Indianapolis, IN 46254-9769 (US). POLIT, Peter, Paul [US/US]; 8309 Reef Court, Indianapolis, IN 46236-9593 (US). STAHL, Thomas, Anthony [US/US]; 7003 Stewart Court, Indianapolis, IN 46256-2261 (US).	
(74) Agents:	TRIPOLI, Joseph, S. et al.; Thomson Multimedia Licensing Incorporated, P.O. Box 5312, Princeton, NJ 08543 (US).	

(54) Title: A METHOD FOR AUTOMATICALLY DETERMINING THE CONFIGURATION OF A MULTI-INPUT VIDEO PROCESSING APPARATUS

(57) Abstract

A method for automatically defining or learning the configuration of a television interconnected with a plurality of peripheral devices utilizes a digital control channel to define the analog interconnections. This method does not require the consumer to know the specific configuration of the system. The system functions properly whether peripheral devices are in the video chain path or not. This method enables a user to simply connect peripheral devices to any one of the multiple inputs of the video processing apparatus. The video processing apparatus employs a systematic process of (1) commanding each of said peripheral devices via a digital bus, such as an IEEE 1394 serial bus, to transmit a signal from its analog output, (2) monitoring the analog inputs of the video processing apparatus to determine which of the inputs receives the transmitted signal, and (3) constructing a map of the analog interconnectivity of each peripheral device connected to said video processing device.



**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakhstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/19688

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 H04N5/44

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 843 468 A (SONY CORP) 20 May 1998 (1998-05-20) column 1, line 1 - line 49 column 5, line 4 - line 31; figures 1-11 ---	1,2,9
A	EP 0 766 462 A (SAMSUNG ELECTRONICS CO LTD) 2 April 1997 (1997-04-02) abstract; figure 5 ---	10-13
A	US 4 821 122 A (TESKEY JOHN F) 11 April 1989 (1989-04-11) cited in the application column 1, line 50 -column 2, line 47; figure 1 ---	1,10,12
A	---	1,10,12
	-/-	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

2 December 1999

08/12/1999

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Fuchs, P

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/19688

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 996 597 A (DUFFIELD DAVID J) 26 February 1991 (1991-02-26) cited in the application column 1, line 1 -column 2, line 15 column 4, line 8 -column 6, line 62; figures 1,4-6 ---	1,10,12
A	US 5 592 234 A (GARDNER TIMOTHY J ET AL) 7 January 1997 (1997-01-07) -----	

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

Intern. Appl. No.

PCT/US 99/19688

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
EP 0843468 A	20-05-1998	JP	10150611 A	02-06-1998
EP 0766462 A	02-04-1997	CN	1151656 A	11-06-1997
		JP	9130697 A	16-05-1997
		US	5926228 A	20-07-1999
US 4821122 A	11-04-1989	DE	3801523 A	04-08-1988
		JP	2579510 B	05-02-1997
		JP	63194479 A	11-08-1988
		JP	2891603 B	17-05-1999
		JP	5304637 A	16-11-1993
US 4996597 A	26-02-1991	CA	2010686 A	20-10-1990
		DE	69031767 D	15-01-1998
		DE	69031767 T	25-06-1998
		EP	0393664 A	24-10-1990
		JP	2295384 A	06-12-1990
		JP	2741278 B	15-04-1998
		JP	2891273 B	17-05-1999
		JP	5219454 A	27-08-1993
US 5592234 A	07-01-1997	EP	0746939 A	11-12-1996
		WO	9619895 A	27-06-1996
		JP	9509814 T	30-09-1997
		US	5621482 A	15-04-1997
		US	5748255 A	05-05-1998
		US	RE35859 E	28-07-1998